REMARKS

I. Introduction

In response to the Office Action dated February 24, 2006, Applicants have amended claim 1 to incorporate the limitations of claim 7 and to further clarify the present invention. Claim 7 has been cancelled. Furthermore, Applicants have amended claims 11 and 12 to eliminate the multiple dependent claims and to correct inadvertent spelling errors. No new matter has been added.

For the reasons set forth below, Applicants respectfully submit that all pending claims are patentable over the cited prior art references.

II. The Rejection Of Claims 1, 4, 7-9 And 12-13 Under 35 U.S.C. § 102

Claims 1, 4, 7-9 and 12-13 were rejected under 35 U.S.C. § 102(b) as being anticipated by Durand et al. (U.S. 5,180,523). Applicants respectfully submit that Durand et al. fails to anticipate the pending claims for at least the following reasons.

With regard to the present invention, amended claim 1 recites a conductive paste comprising: conductive particles comprising primary particles and agglomerate of primary particles, which are 0.5 to 20 μm in average particle diameter and 0.07 to 1.7 m.sup.2/g in specific surface area, and a binder based on thermosetting resin, wherein the content of the conductive particles ranges from 30 to 70 vol %, and the content of the binder ranges from 70 to 30 vol %.

In contrast to the claimed invention, Durand discloses a composition containing 75 wt% conductive particles and 25 wt% epoxy resin, as was pointed out in the Office Action (see col 5, lines 57-59 and col 8, Table 2). As is well known in the patent law, prior art which teaches a

value or range that is very close to, but does not overlap or touch, the claimed range does not anticipate the claimed range (MPEP § 2131.04). Furthermore, with regard to Table 2, Durand states that the 76.5% silver content represents a preferred value for practical applications. In addition, Durand teaches that *below 74% the material can exhibit electrical instability* with resistance increasing by an order of magnitude in the 90% relative humidity test. Therefore, not only does Durand fail to disclose a conductive paste wherein the content of the conductive particles ranges from 30 to 70 vol %, and the content of the binder ranges from 70 to 30 vol %, Durand teaches against the use of the range recited in claim 1 of the invention.

Anticipation under 35 U.S.C. § 102 requires that each and every element of the claim be disclosed, either expressly or inherently in a prior art reference, *Akzo N.V. v. U.S. Int'l Trade Commission*, 808 F.2d 1471 (Fed. Cir. 1986), and Durand et al. does not disclose a conductive paste wherein the content of the conductive particles ranges from 30 to 70 vol %, and the content of the binder ranges from 70 to 30 vol %. Therefore, as it is apparent from the foregoing that Durand fails to anticipate amended claim 1 or any dependent claims thereon, Applicants respectfully request that the § 102 rejection be traversed.

II. The Rejection Of Claims 1 and 4-16 Under 35 U.S.C. § 103

Claims 1 and 4-16 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Omoya et al. (USP No. 6,139,777). Applicants respectfully traverse this rejection of the pending claims for at least the following reasons.

As shown above, amended claim 1 of the present invention recites a conductive paste comprising conductive particles comprising primary particles and agglomerate of primary particles. Further, it was noted that Omoya fails to disclose an agglomerate of primary particles. However, it is alleged that because the prior art teaches making the conductive paste by mixing

the component in a three roll mill, wherein the composition, components and process of making the composition are ***similar*** to the present invention, the present invention is obvious.

This allegation is incorrect. The fact that the compositions may or may not be *similar* is of no consequence in patent law. As is well known in patent law, in order to establish *prima facie* obviousness of a claimed invention, **all** the claim limitations **must** be taught or suggested by the prior art, *In re Royka*, 180 USPQ 580 (CCPA1974). As the Examiner has noted, there is no teaching or suggestion anywhere in Omoya of an agglomerate of primary particles. Furthermore, Omoya clearly shows, in Table 1 in col. 16, that **only one particle diameter** is used in each example. This is in direct contrast to the present invention which claims primary particles **and** agglomerate of primary particles. The advantage of this feature of the present invention is described in the specification on page 15, which recites,

> "When the agglomeration degree is less than 1.05, the viscosity lowering effect of conductive past is remarkable, but the resistance value of via-hole conductor worsens, affecting the conducting connection reliability."

In other words, the use of an agglomeration of particles, which is not disclosed or taught in Omoya, is an improvement over the cited prior art.

Thus, Omoya does not disclose a conductive paste comprising conductive particles comprising primary particles and agglomerate of primary particles. Therefore, as it is clear that Omoya fails to teach or suggest all the claim limitations of the present invention, Omoya fails to render obvious, claim 1, or any claim dependent thereon. Accordingly, Applicants respectfully request that the § 103 rejection of the pending claims be withdrawn.

III. All Dependent Claims Are Allowable Because The Independent Claim From Which They Depend Is Allowable

Under Federal Circuit guidelines, a dependent claim is nonobvious if the independent claim upon which it depends is allowable because all the limitations of the independent claim are contained in the dependent claims, *Hartness International Inc. v. Simplimatic Engineering Co.*, 819 F.2d at 1100, 1108 (Fed. Cir. 1987). Accordingly, as claim 1 is patentable for the reasons set forth above, it is respectfully submitted that all pending dependent claims are also in condition for allowance.

IV. Conclusion

Having responded to all open issues set forth in the Office Action, it is respectfully submitted that all claims are in condition for allowance.

To the extent necessary, a petition for an extension of time under 37 C.F.R. 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account 500417 and please credit any excess fees to such deposit account.

Respectfully submitted,

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